

251. SOME ANATOMICAL VARIANTS OF THE ARTERIES OF THE UPPER LIMB

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Introduction. The study of individual variability is a large division of anatomy and one of the current directions of modern morphology. Many errors in medical practice are caused by the ignorance of anatomical variants. Radiologists may mistakenly confuse and interpret angiographic images with such vascular patterns, and surgeons may encounter difficulties during surgery at this level.

Aim of the study. Morphological and imaging evaluation of variations of the brachial artery (BA) branching pattern.

Materials and methods. A retrospective, descriptive study of BA was carried out on 70 upper limbs (UL) of formalized adult cadavers, dissected at the Department of Human Anatomy of *Nicolae Testemitanu* SUMPh, and on 183 angiographies, taken from the database of the Medical Center *Euromed Diagnostic*, and from the Department of Interventional Radiology, Angiography of MSPI MCH *Sfânta Treime*, from Chisinau, Republic of Moldova. Using the method of fine anatomical dissection and the analysis of angiographic records, the branching pattern of BA at the level of its terminal branches was followed.

Results. The atypical branching pattern of BA was determined in 21 UL (8.3%). The identified cases were divided into 5 groups: 1) high bifurcation of BA, found in 2.7% (7 UL: in 4 UL it was visualized in the middle third of the arm; in 1 UL - at the level of the retropectoral portion of the axillary artery (AA); in 1 UL - in the upper third of the arm and in another UL - in the lower third of the arm); 2) BA trifurcation, established in 2% (5 UL: in 4 UL the brachial artery trifurcated into the radial, ulnar and radial recurrent arteries, and in another limb - into the radial, ulnar and common interosseous arteries); 3) high origin of the ulnar artery, 2% (5 UL: in 3 UL it started from AA, and in the other 2 - from BA, in the upper third of the arm); 4) high origin of the radial artery, 1.2% (3 UL: in 2 UL it started from BA, in the upper third of the arm, and in another limb - from AA); 5) the presence of superficial BA - 0.4% (in 1 UL, this artery started from the retropectoral portion of AA, while in the lower third of the arm it anastomosed with BA).

Conclusions. The origin and course variation of BA are of major practical importance for both radiologists and vascular surgeons.

Key words: arterial variants, brachial artery

252. DEVELOPMENT OF THE FACIAL NERVE IN HUMAN EMBRYOS

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Introduction. The facial nerve derives from the facio-acoustic primordium that gradually differentiates into the facial nerve and acoustic ganglion. At the end of embryonic period, all derivatives of the facial nerve are distinguished.

Aim of the study. The aim of our study was to emphasize the peculiarities of the facial nerve embryogenesis.

Materials and methods. The development of the facial nerve was studied on 39 series of sagittal, frontal and transverse cross-sections of human embryos at Carnegie stages 13-23 from the embryological collection of the Department of Normal Anatomy of the Belarusian State Medical University from Minsk.

Results. At stage 13 the facio-acoustic primordium split into the facial nerve and acoustic ganglion. During stages 15-17 the intracranial connections of the facial nerve with the trigeminal and glossopharyngeal nerves were distinguished. The facial nerve appeared as a dark impregnated trunk, that later converted into a loose neurofibrous structure. The peripheral branching of the facial trunk into the temporofacial and cervicofacial divisions was distinguished at stage 14. At the beginning of stage 15 the parotid plexus branches were marked out. The geniculate ganglion appeared as an ovoid structure, consisting of nervous fibers and rows of growing neuroblasts. At stage 15 the chorda tympany nerve derived from the geniculate ganglion and it run between the auditory ossicles. At the end of stage 15, beginning of stage 16 the greater petrosal nerve was distinguished, and at its origin the nerve was thick, but slightly after that it continued into a thin twig that distally connected with the lesser petrosal nerve and then disappeared into the surrounding mesenchyme.

Conclusions. The facial nerve derived at stage 13 from the facio-acoustic primordium. At stages 15-17 the intracerebral connections of the facial nerve with the trigeminal and glossopharyngeal nerves were well distinguished. The geniculate ganglion consisted of nervous fibers and neuroblasts in growth. The chorda tympany nerve was one of the earliest branches that derived from the facial trunk, and then the greater petrosal nerve appeared. The temporofacial division of the facial nerve was better developed in comparison with the cervicofacial one, and in the infraorbital region, it had a plexiform character.

Key words: embryo, facial nerve, geniculate ganglion

253. ANATOMICAL VARIATIONS OF THE UPPER LIMB NERVES

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Introduction. The puncture and catheterization of the main arteries of the upper limb, as well as the nerve blocks that are often performed by surgeons, are considered „blind” methods, the success of which depends on their in-depth knowledge of the anatomy of the nerves and blood vessels of the given level. The existence of anatomical variations (AV) of the nerves of the upper limb (UL) must be taken into consideration when selecting the intervention tactics, otherwise the risk of mono- or polyneuropathy may increase.

Aim of the study. Identification of AV of the nerves of the UL depending on gender and laterality.

Materials and methods. A morphological, descriptive study of the brachial plexus (BP) branches was performed on 30 upper limbs (14 male and 16 female), collected from formalin-